The Texas Commission on Environmental Quality (commission) proposes new §§101.501 - 101.504, 101.506, and 101.508.

The new sections will be submitted to the United States Environmental Protection Agency (EPA) as revisions to the state implementation plan (SIP).

BACKGROUND AND SUMMARY OF THE FACTUAL BASIS FOR THE PROPOSED RULES On May 12, 2005, EPA promulgated the Clean Air Interstate Rule (CAIR) to assist nonattainment areas in downwind states in achieving compliance with the national ambient air quality standards (NAAQS) for particulate matter less than or equal to 2.5 microns (PM<sub>2.5</sub>) and eight-hour ozone. Twenty-eight eastern states and the District of Columbia were identified as upwind contributors to the nonattainment of the PM<sub>2.5</sub> and eight-hour ozone NAAQS prompting the requirement for the reduction in emissions of sulfur dioxide (SO<sub>2</sub>) and/or oxides of nitrogen (NO<sub>3</sub>). Twenty-three states, including Texas, and the District of Columbia were found to contribute to the downwind nonattainment of the PM<sub>2.5</sub> NAAQS and are required to make reductions in annual emissions of SO<sub>2</sub> and NO<sub>x</sub>. Twenty-five states and the District of Columbia, not including Texas, were found to contribute to the downwind nonattainment of the eight-hour ozone NAAQS and are required to reduce ozone-season NO<sub>x</sub> emissions. EPA modeled 37 states, including Texas, for PM<sub>2.5</sub> contribution using the Community Multiscale Air Quality Model. A criterion of 0.2 micrograms per cubic meter (µg/m³) was used for determining whether SO<sub>2</sub> and NO<sub>x</sub> emitted in one state made a significant contribution to PM<sub>2.5</sub> nonattainment in another state. State-by-state, zero-out modeling was then used to quantify the state's contribution for SO<sub>2</sub> and NO<sub>x</sub>. EPA's modeling demonstrated that Texas provided a contribution of

 $0.29 \,\mu g/m3$  with two downwind "linkages," Madison County, Illinois and St. Clair County, Illinois. For ozone contribution, 31 states in the eastern United States were modeled. Since Texas was not included in the modeling exercise, EPA did not determine that Texas contributed to ozone nonattainment in another state.

The  $NO_x$  and  $SO_2$  reduction requirements under CAIR are being implemented in two phases by providing states with declining budgets. For  $NO_x$ , Phase I begins in 2009 and continues through the year 2014 with Texas receiving an initial  $NO_x$  budget of 181,014 tons annually. The Phase II  $NO_x$  budget will begin in 2015, with Texas receiving 150,845 tons annually. State  $SO_2$  budgets are based on the allowance allocations provided under Federal Clean Air Act (FCAA), Title IV. Annual state budgets for Phase I, 2010 - 2014, are based on a 50% reduction of Title IV allowances allocated in the affected state. The initial  $SO_2$  budget for Texas during Phase I is 320,946 tons. For Phase II, 2015 and thereafter,  $SO_2$  budgets are based on a 65% reduction of Title IV allowances allocated in the affected state, with Texas receiving 224,662 tons.

EPA provided states with two compliance options for meeting the reduction requirements under CAIR:

1) meet the state's emission budget by requiring electric generating units (EGUs) to participate in an EPA-administered interstate cap and trade program; or 2) meet an individual state emissions budget through measures of the state's choosing. The 79th Legislature, 2005, enacted House Bill (HB) 2481, \$2 (to be codified at Texas Health and Safety Code (THSC), Texas Clean Air Act (TCAA), \$382.0173), requiring Texas to participate in the EPA-administered interstate cap and trade program through the incorporation by reference of the CAIR model trading rule. HB 2481 also provided

specific direction for the methodology to be used in allocating the  $NO_x$  trading budget provided to Texas, identified an amount of CAIR  $NO_x$  allowances to be set-aside for new sources, and specified that reductions associated with CAIR would only be required from new and existing EGUs and not from other sources of  $SO_2$  and  $NO_x$  emissions.

HB 2481 amended THSC, Chapter 382 by adding §382.0173. THSC, §382.0173(a) requires that the commission adopt rules "incorporat{ing} by reference 40 CFR Subparts AA through II and Subparts AAA through III of Part 96 and 40 CFR Subpart HHHH of Part 60." Additionally, THSC, §382.0173(b) requires the commission to "make permanent allocations that are reflective of the allocation requirements of 40 CFR Subparts AA through HH and Subparts AAA through HHH of Part 96 and 40 CFR Subpart HHHHH of Part 60 . . . at no cost . . . using the {EPA's} allocation method as specified by Section 60.4142(a)(1)(i), as issued by that agency on May 12, 2005, or 40 CFR Section 96.142(a)(1)(i), as issued by that agency on May 18, 2005, as applicable with the exception of nitrogen oxides which shall be allocated according to the additional requirements of Subsection (c)." THSC, §382.0173(c) provides additional requirements regarding NO<sub>x</sub> allocations, specifically a requirement to maintain a special reserve of allocations for certain units, and requirements relating to establishing allocations for specific control periods. THSC, §382.0173(d) provided that its provisions applied only while the federal rules were enforceable and that the provisions of HB 2481 do "not limit the authority of the commission to implement more stringent emissions control requirements."

The commission interprets these requirements together in order to provide effect to the expressed intent of the legislature. Specifically, the commission interprets the language of new THSC, §382.0173(d) as

not restricting existing authority to require further emissions control requirements, but not to interfere with, or change, the requirements of the CAIR NO<sub>x</sub> and SO<sub>2</sub>, or the Clean Air Mercury Rule (CAMR) mercury emission trading programs. The legislature expressed clear intent that the commission implement the CAIR and CAMR emission trading programs by requiring the incorporation by reference of the CAIR and CAMR program rules as promulgated by EPA, and requiring the use of EPA-specified allocation methodology, with some exceptions for CAIR NO<sub>x</sub> allowances.

Under 40 Code of Federal Regulations (CFR) Part 96, EPA promulgated a model rule for the CAIR NO<sub>x</sub> Annual Trading Program. This model rule is a market-based cap and trade system designed to reduce the costs of complying with the new NO<sub>x</sub> and SO<sub>2</sub> reduction requirements. The CAIR model rule designates respective budgets for annual NO<sub>x</sub> and SO<sub>2</sub> emissions within each state to be applied to all fossil fuel-fired boilers and turbines serving an electrical generator with a nameplate capacity greater than 25 megawatts of electricity (MWe) and producing electricity for sale. The model rule provides flexibility in complying with the NO<sub>x</sub> and SO<sub>2</sub> reduction requirements through the unrestricted banking of excess allowances and the trading of allowances between EGUs in affected CAIR states under common caps. For example, EGUs in Texas will be allowed to trade NO<sub>x</sub> allowance allocations with other CAIR states participating in the CAIR NO<sub>x</sub> Annual Trading Program, while the trading of SO<sub>2</sub> allowances will be permissible with CAIR states participating in the CAIR SO<sub>2</sub> Trading Program or the Title IV SO<sub>2</sub> Allowance Trading Program. The model rule provides states flexibility in the allocation methodology used to determine CAIR NO<sub>x</sub> allowance allocations for each CAIR NO<sub>x</sub> unit. CAIR states are then responsible for submitting the CAIR NO<sub>x</sub> allowance allocations to EPA for recordation. CAIR SO<sub>2</sub> allowance allocations would be distributed by EPA based on the CAIR

source's Title IV SO<sub>2</sub> allowance allocation. Under the CAIR model rule, EPA takes responsibility for establishing CAIR compliance accounts for each CAIR source and maintaining an allowance tracking system to record the deposit, transfer, and deduction for compliance of all CAIR allowances. CAIR sources would be required, under the model rule, to demonstrate compliance through the installation and operation of continuous emissions monitoring systems as required under 40 CFR Part 75. Finally, the model rule requires all elements of the CAIR NO<sub>x</sub> Annual Trading Program and CAIR SO<sub>2</sub> Trading Program to be federally enforceable through the issuance of a CAIR permit as a complete and separable portion of the CAIR source's Title V permit.

As directed by HB 2481, the commission is proposing under Chapter 101, Subchapter H, new Division 7 to incorporate 40 CFR Part 96, Subpart AA - Subpart II and Subpart AAA - Subpart III by reference for the purpose of complying with the CAIR. In addition, the commission is proposing specific rules under Subchapter H, Division 7 regarding the methodologies and procedures for determining each CAIR NO<sub>x</sub> source's CAIR NO<sub>x</sub> allowance allocation in lieu of the CAIR NO<sub>x</sub> allowance allocation methodologies and procedures under 40 CFR Part 96, Subpart EE. The proposed rules would apply to EGUs that are defined as a stationary, fossil fuel-fired boiler or a stationary, fossil fuel-fired combustion turbine serving at any time, since the startup of the unit's combustion chamber, a generator with nameplate capacity of more than 25 MWe and producing electricity for sale. The proposed rules would also apply to cogeneration units serving at any time a generator with nameplate capacity of more than 25 MWe and supplying in any calendar year more than one-third of the unit's potential electric output capacity or 219,000 megawatts per hour (MWh), whichever is greater, to any utility power distribution system for sale.

The proposed rules would distribute the NO<sub>x</sub> trading budget provided to Texas to each CAIR NO<sub>x</sub> unit based on the specific direction provided under HB 2481. A total amount of CAIR NO, allowances equal to 9.5% of the Texas NO<sub>x</sub> trading budget would be set-aside as a special reserve for distribution to new units commencing operation on or after January 1, 2001. The remaining 90.5% of the Texas NO<sub>x</sub> trading budget would be distributed to units having commenced operation before January 1, 2001, based on a three-year average of the unit's historical heat input adjusted for the type of fuel burned. In performing the fuel adjustment, a unit's historical heat input would be multiplied by the following: 90% for coal-fired, 50% for natural gas-fired, and 30% for all other fossil fuels. The proposed rules would also incorporate an allocation update beginning with the 2016 control period, and for the control period beginning every five years thereafter. The allocation update would adjust the baseline heat input used in determining the CAIR NO<sub>x</sub> allowance allocation for each CAIR NO<sub>x</sub> unit. In addition to the Texas NO<sub>x</sub> trading budget, the CAIR model trading rule provides an additional pool of allowances available for allocation in the 2009 control period to those CAIR NO, units achieving early NO, reductions in 2007 and 2008, or whose compliance with the CAIR NO, reduction requirements for the 2009 control period would create undue risk to the reliability of electricity supply during the year 2009. This pool of NO<sub>x</sub> allowances, the compliance supplement pool, equates to an additional 772 tons for Texas. The proposed rules would specify the requirements for a compliance supplement pool allowance request by CAIR NO<sub>x</sub> sources.

The commission is concurrently proposing an additional rulemaking to 30 TAC Chapter 122, Federal Operating Permits Program, in this issue of the *Texas Register* to implement HB 2481. The commission is also proposing a CAIR SIP and CAMR state plan.

# SECTION BY SECTION DISCUSSION

The commission proposes administrative changes throughout these sections to be consistent with Texas Register requirements and other agency rules and guidelines.

# SUBCHAPTER H, EMISSIONS BANKING AND TRADING

Division 7, Clean Air Interstate Rule

Section 101.501, Applicability

Proposed new §101.501 would state that the requirements of Subchapter H, Division 7 apply to any stationary, fossil fuel-fired boiler or stationary, fossil fuel-fired combustion turbine meeting the applicability requirements under 40 CFR Part 96, Subpart AA or Subpart AAA. 40 CFR Part 96, Subpart AA and Subpart AAA define applicable units as stationary, fossil fuel-fired boilers or combustion turbines serving at any time, since the startup of the unit's combustion chamber, a generator with a nameplate capacity of more than 25 MWe producing electricity for sale. The referenced applicability also includes cogeneration units serving at any time a generator with a nameplate capacity of more than 25 MWe and supplying in any calendar year more than one-third of the unit's potential electric output capacity or 219,000 MWh, whichever is greater, to any utility power distribution system for sale.

Section 101.502, Clean Air Interstate Rule Trading Program

Proposed new §101.502 would incorporate by reference, with the exception of the requirements specified under Subchapter H, Division 7, the CAIR trading programs for annual NO<sub>x</sub> and SO<sub>2</sub> codified under 40 CFR Part 96, Subpart AA - Subpart II and Subpart AAA - Subpart III finalized on

May 12, 2005. The proposed section would require owners and operators of sources subject to 40 CFR Part 96, Subpart AA - Subpart II or Subpart AAA - Subpart III to comply with the requirements of those subparts. The proposed new section would also specify that the methodologies and procedures for determining CAIR NO<sub>x</sub> allowance allocations in 40 CFR Part 96, Subpart EE are replaced by the requirements of this division.

The requirements of 40 CFR Part 96, Subpart AA - Subpart II relate to the CAIR NO, Annual Trading Program. Specifically, 40 CFR Part 96, Subpart AA describes the general provisions of the CAIR NO<sub>x</sub> Annual Trading Program, including definitions; applicability; an exemption from the permitting, monitoring, and reporting requirements of the program for retired units; and standard procedural requirements of the program. 40 CFR Part 96, Subpart BB outlines the procedures for the authorization of and the responsibilities of the CAIR designated representative and alternate CAIR designated representative for a CAIR NO, source. The CAIR designated representatives or alternates would represent and, through their representations, actions, inactions, or submissions, legally bind each owner and operator of a CAIR NO<sub>x</sub> source in all matters pertaining to the CAIR NO<sub>x</sub> Annual Trading Program. 40 CFR Part 96, Subpart CC describes the requirement for each CAIR NO<sub>x</sub> source to apply for and obtain a CAIR permit containing all applicable CAIR NO<sub>x</sub> Annual Trading Program requirements for each CAIR NO<sub>x</sub> unit at the source. The CAIR permit is required to be a complete and separable portion of the CAIR NO<sub>x</sub> source's Title V operating permit. 40 CFR Part 96, Subpart EE outlines the methods and procedures for determining CAIR NO<sub>x</sub> allowance allocations, including the annual CAIR NO<sub>x</sub> trading budgets for each state. The methods and procedures identified in 40 CFR Part 96, Subpart EE are replaced by the requirements of this division. 40 CFR Part 96, Subpart

FF describes the CAIR NO<sub>x</sub> allowance tracking system, the methods for establishing compliance and general accounts, the recording of CAIR NO<sub>x</sub> allowance allocations into a CAIR NO<sub>x</sub> source's compliance account, the procedures for deducting allowances for compliance, and the banking of CAIR NO<sub>x</sub> allowances. Deductions for compliance would be based on the monitoring and reporting requirements under 40 CFR Part 96, Subpart HH, with "penalty" deductions for exceeding the amount of allowances held in a compliance account being equal to three times the number of tons in excess. 40 CFR Part 96, Subpart GG describes the procedures for the submission and recordation of CAIR NO<sub>x</sub> allowance trades. 40 CFR Part 96, Subpart HH provides the requirements for emissions monitoring, initial certification and recertification procedures for monitors, recordkeeping, and reporting.

40 CFR Part 96, Subpart II describes the opt-in provisions for the CAIR NO<sub>x</sub> Annual Trading Program. The opt-in provisions would apply to a unit that is not already a CAIR NO<sub>x</sub> unit under 40 CFR §96.104 or covered by a retired unit exemption; has or is qualified to have a Title V operating permit; vents all emissions to a stack; and can meet the monitoring, recordkeeping, and reporting requirements of 40 CFR Part 96, Subpart HH. CAIR NO<sub>x</sub> opt-in units would be required to apply for and obtain a CAIR permit as prescribed under 40 CFR Part 96, Subpart CC. Units electing to opt-in to the CAIR NO<sub>x</sub> Annual Trading Program would be required to monitor and report the NO<sub>x</sub> emission rate and heat input of the unit in accordance with the monitoring and reporting requirements of 40 CFR Part 96, Subpart HH for the entire control period prior to the date that the unit elects to enter the CAIR NO<sub>x</sub> Annual Trading Program. The baseline heat input and baseline emission rate for each CAIR NO<sub>x</sub> opt-in unit would be dependent upon the number of control periods for which the unit has monitored and reported heat input and emission rate data in accordance with 40 CFR Part 96, Subpart HH. If the

unit has monitored and reported for only one control period, the baseline heat input and emission rate would be the unit's total heat input and NO<sub>2</sub> emission rate for the control period immediately preceding the date that the unit elects to opt-in. For units that have monitored and reported for more than one control period, the baseline heat input and emission rate would be the average of the most recent threeyear period. The opt-in provisions of 40 CFR Part 96, Subpart II allow opt-in units to choose from two different allocation methods for receiving an allocation of CAIR NO<sub>x</sub> allowances. The general approach allocates CAIR NO<sub>x</sub> allowances to opt-in units at 70% of their baseline NO<sub>x</sub> emission rate with no additional reductions required after the 2009 control period. An alternative approach allocates CAIR NO<sub>x</sub> allowances at the baseline levels for the 2009 - 2014 control periods, but requires deeper reductions starting in 2015. The CAIR NO<sub>x</sub> allowance allocation for each control period beginning in 2015, and thereafter, would be based on a NO<sub>x</sub> emission rate equal to the lesser of 0.15 lb of NO<sub>x</sub>/million British thermal units (MMBtu), the unit's baseline emission rate, or the most stringent state or federal NO<sub>x</sub> emission limit applicable for any time during the applicable control period. Owners or operators of units may elect to opt-in to the CAIR NO<sub>x</sub> Annual Trading Program without electing to opt-in to the CAIR SO<sub>2</sub> Trading Program and may withdraw from participation in the CAIR NO<sub>x</sub> Annual Trading Program after five years of participation.

The requirements of 40 CFR Part 96, Subpart AAA - Subpart III relate to the CAIR SO<sub>2</sub> Trading Program and closely mirror the requirements for the CAIR NO<sub>x</sub> Annual Trading Program under 40 CFR Part 96, Subpart AA - Subpart II. An element unique to the CAIR SO<sub>2</sub> Trading Program is the program's interaction and coordination with the Title IV SO<sub>2</sub> Trading Program. Under the CAIR SO<sub>2</sub> Trading Program, states have no discretion in the approach to the allocation of SO<sub>2</sub> allowances because

EPA will base the CAIR SO<sub>2</sub> allowance allocations on the SO<sub>2</sub> allocations already provided under the Title IV SO<sub>2</sub> Trading Program. Compliance with the CAIR SO<sub>2</sub> Trading Program is coordinated with the Title IV SO<sub>2</sub> Trading Program through requiring the use of Title IV SO<sub>2</sub> allowances for compliance with the CAIR SO<sub>2</sub> Trading program at increasing ratios. Title IV SO<sub>2</sub> allowances allocated for 2010 - 2014 would be retired for compliance with the CAIR SO<sub>2</sub> Trading Program at a ratio of two allowances per ton of emissions. SO<sub>2</sub> allowances allocated for 2015, and thereafter, would be retired for compliance at a ratio of 2.86 allowances per ton of emissions. Title IV SO<sub>2</sub> allowances allocated for years prior to 2010 may be used for compliance with the CAIR SO<sub>2</sub> Trading Program at a ratio of one allowance per ton of emissions. SO<sub>2</sub> allowances would be freely transferrable between sources covered by the Title IV SO<sub>2</sub> Trading Program and sources covered by the CAIR SO<sub>2</sub> Trading Program.

40 CFR Part 96, Subpart AAA describes the general provisions of the CAIR SO<sub>2</sub> Trading Program including definitions; applicability; an exemption for retired units; and standard procedural requirements of the program. 40 CFR Part 96, Subpart BBB outlines the procedures for the authorization of and the responsibilities of the CAIR designated representative and alternate CAIR designated representative for a CAIR SO<sub>2</sub> source. 40 CFR Part 96, Subpart CCC describes the requirement for each CAIR SO<sub>2</sub> source to apply for and obtain a CAIR permit containing all applicable CAIR SO<sub>2</sub> Trading Program requirements for each CAIR SO<sub>2</sub> unit at the source. 40 CFR Part 96, Subparts DDD and EEE are reserved. 40 CFR Part 96, Subpart FFF describes the CAIR SO<sub>2</sub> allowance tracking system, establishment of compliance accounts and general accounts, recordation of CAIR SO<sub>2</sub> allowance allocations, procedures for deducting allowances for compliance, and the banking of CAIR SO<sub>2</sub> allowances. Deductions for compliance would be based on the monitoring and reporting

requirements under 40 CFR Part 96, Subpart HHH, with "penalty" deductions for exceeding the amount of allowances held in a compliance account being equal to three times the number of tons in excess.

The deduction of SO<sub>2</sub> allowances outlined under 40 CFR Part 96, Subpart FFF for compliance with the CAIR SO<sub>2</sub> Trading Program would be determined in two steps. First, CAIR SO<sub>2</sub> allowances would be deducted at a 1:1 ratio for compliance with the Title IV SO<sub>2</sub> Trading Program. Secondly, any additional deductions for compliance with the CAIR SO<sub>2</sub> Trading Program would be made at the applicable ratio for the vintage year allowance being deducted. For example, a CAIR SO<sub>2</sub> unit emits 100 tons of SO<sub>2</sub> in the 2012 control period. The compliance account for the CAIR SO<sub>2</sub> unit holds 70 vintage 2009 allowances and 60 vintage 2012 allowances. For compliance with the Title IV SO<sub>2</sub> Trading Program, 70 vintage 2009 allowances and 30 vintage 2012 allowances are deducted to cover the 100 tons of emissions, leaving an excess of 30 vintage 2012 allowances. However, for CAIR, the tonnage equivalent for the deduction to comply with the Title IV SO<sub>2</sub> Trading Program is 85 allowances (70 vintage 2009 allowances and 30 vintage 2012 allowances used at a 2:1 ratio). The remaining 30 vintage 2012 allowances not needed for compliance with the Title IV SO<sub>2</sub> Trading Program would be deducted from the compliance account at a 2:1 ratio to make up the 15-ton difference for compliance with the CAIR.

40 CFR Part 96, Subpart GGG describes the procedures for submitting and recording CAIR SO<sub>2</sub> allowance trades. 40 CFR Part 96, Subpart HHH provides the requirements for emissions monitoring, certification and recertification of monitors, recordkeeping, and reporting. 40 CFR Part 96, Subpart

III describes the opt-in provisions for the CAIR SO<sub>2</sub> Trading Program. The opt-in provisions would apply to an owner or operator of a unit that is not already a CAIR SO<sub>2</sub> unit under 40 CFR §96.204 or covered by a retired unit exemption; has or is qualified to have a Title V operating permit; vents all emissions to a stack; and can meet the monitoring, recordkeeping, and reporting requirements of 40 CFR Part 96, Subpart HHH. Owners or operators of CAIR SO<sub>2</sub> opt-in units would be required to apply for and obtain a CAIR permit as prescribed under 40 CFR Part 96, Subpart CCC. Owners or operators of units electing to opt-in to the CAIR SO<sub>2</sub> Trading Program would be required to monitor and report the SO<sub>2</sub> emission rate and heat input of the unit in accordance with the monitoring and reporting requirements of 40 CFR Part 96, Subpart HHH for the entire control period prior to the date that the unit elects to enter the CAIR SO<sub>2</sub> Trading Program. The baseline heat input and baseline emission rate for each CAIR SO<sub>2</sub> opt-in unit would be dependent upon the number of control periods for which the unit has monitored and reported heat input and emission rate data in accordance with 40 CFR Part 96, Subpart HHH. If the owners or operators of a unit have monitored and reported for only one control period, the baseline heat input and emission rate would be the unit's total heat input and SO<sub>2</sub> emission rate for the control period immediately preceding the date that the unit elects to opt-in. For owners or operators of units that have monitored and reported for more than one control period, the baseline heat input and emission rate would be the average of the most recent three-year period. The opt-in provisions of 40 CFR Part 96, Subpart III allows owners or operators of opt-in units to choose from two different allocation methods for receiving an allocation of CAIR SO<sub>2</sub> allowances. The general approach would allocate CAIR SO<sub>2</sub> allowances to opt-in units at 70% of their baseline SO<sub>2</sub> emission rate with no additional reductions required after the 2010 control period. An alternative approach would allocate CAIR SO<sub>2</sub> allowances at the baseline levels for the 2010 - 2014 control

periods, but require deeper reductions starting in 2015. The CAIR SO<sub>2</sub> allowance allocation for each control period beginning in 2015, and thereafter, would be based on a SO<sub>2</sub> emission rate equal to the lesser of the unit's baseline emission rate multiplied by 10% or the most stringent state or federal SO<sub>2</sub> emission limit applicable for any time during the applicable control period. Owners or operators of units may elect to opt-in to the CAIR SO<sub>2</sub> Trading Program without electing to opt-in to the CAIR NO<sub>x</sub> Annual Trading Program and may withdraw from participation in the CAIR SO<sub>2</sub> Trading Program after five years of participation.

Section 101.503, Clean Air Interstate Rule Oxides of Nitrogen Annual Trading Budget

Proposed new §101.503 would specify that the NO<sub>x</sub> trading budget for annual allocations of CAIR NO<sub>x</sub> allowances for each control period in 2009 - 2014 and for 2015, and thereafter, would be equivalent to the tons of NO<sub>x</sub> emissions listed for Texas in the state trading budget under 40 CFR §96.140. As finalized on May 12, 2005, 40 CFR §96.140 provides Texas with an annual NO<sub>x</sub> trading budget of 181,014 tons for each control period in 2009 - 2014, and 150,845 tons for each control period in 2015, and thereafter. The proposed new rule would also reserve an amount of CAIR NO<sub>x</sub> allowances equivalent to 9.5% of the Texas NO<sub>x</sub> trading budget for allocation to new units. This new unit set-aside would equate to 17,196 tons of CAIR NO<sub>x</sub> allowances for each control period in 2009 - 2014, and 14,330 tons of CAIR NO<sub>x</sub> allowances for each control period in 2015, and thereafter.

Section 101.504, Timing Requirements for Clean Air Interstate Rule Oxides of Nitrogen Allowance Allocations

Proposed new §101.504 outlines the deadlines by which the executive director would submit to EPA the CAIR NO<sub>x</sub> allowance allocations for each CAIR NO<sub>x</sub> unit subject to this division. The proposed rule would require the executive director to submit to EPA by October 31, 2006, the CAIR NO. allowance allocations for the 2009 - 2014 control periods, as determined under §101.506(c) for CAIR NO<sub>x</sub> units with a historical baseline heat input. Subsequently, the proposed rule would require submittal to EPA of the CAIR NO, allowance allocations determined under §101.506(c) for the 2015 control period by June 1, 2011, and for the 2016 control period by June 1, 2014. Beginning with the 2017 control period, and for each control period thereafter, the CAIR NO<sub>x</sub> allowance allocations determined under §101.506(c) would be submitted to EPA 18 months prior to each applicable control period. For example, the CAIR NO<sub>x</sub> allowance allocations determined under §101.506(c) for the 2017 control period would be submitted to EPA by June 1, 2015, 18 months prior to January 1, 2017. The proposed deadline for submittal of the CAIR NO<sub>x</sub> allowance allocations for the 2016 control period, and for each control period thereafter, would allow for a minimum lead time of no more than 18 months between recordation of the allocation by EPA and the start of the applicable control period. This lead time would be in conflict with the required minimum lead time of three years provided under 40 CFR §51.123(o)(2)(ii) for states declining the adoption of the allocation provisions under 40 CFR Part 96, Subpart EE. However, the proposed submittal deadline would be consistent with HB 2481, requiring the update of the baseline heat input used in determining the CAIR NO<sub>x</sub> allowance allocations for CAIR NO, units in Texas. HB 2481 states that beginning with the 2016 control period, and for each control period beginning every five years thereafter, the baseline heat input for all affected CAIR

NO<sub>x</sub> units must be updated to reflect the average of the three highest amounts of the unit's adjusted control period heat input during control periods one through five of the previous seven control periods. For example, the baseline period for determining CAIR NO<sub>x</sub> allowance allocations for the 2016 control period would be the average of the unit's three highest amounts of adjusted heat input from the 2009 - 2013 control periods. To meet the required three-year minimum lead time under 40 CFR §51.123(o)(2)(ii), the allocations for the 2016 control period must be submitted no later than January 1, 2013. Therefore, the federal requirement would not allow for the completion of the baseline period mandated under HB 2481. The proposed deadline for submission of CAIR NO<sub>x</sub> allowance allocations 18 months in advance of each control period beginning in 2016, and thereafter, would allow for the completion of the mandated baseline period, as well as provide time for the executive director to determine the updated CAIR NO<sub>x</sub> allowance allocations and submit the updated allocations to EPA.

Proposed §101.504 would also specify the deadline for submission of CAIR NO<sub>x</sub> allowance allocations by the executive director to EPA for allowances distributed from the new unit set-aside. For the 2009 control period, and for each control period thereafter, the CAIR NO<sub>x</sub> allowance allocations determined under §101.506(d) and (e) would be submitted to EPA by October 31 of that control period. The proposed new rule also describes the actions that EPA would take should the executive director fail to submit the CAIR NO<sub>x</sub> allowance allocations by the proposed deadlines in §101.504(a). Should the CAIR NO<sub>x</sub> allowance allocations not be provided to EPA by the applicable deadlines in §101.504(a) for each control period, in accordance with 40 CFR §96.141 EPA will assume that the CAIR NO<sub>x</sub> allowance allocations for the applicable control period are the same as for the immediately preceding control period. If the applicable control period is 2015, EPA would assume the CAIR NO<sub>x</sub> allowance

allocations equal 83% of the allocations for the 2014 control period. For units receiving allocations under  $\S101.506(d)$  and (e), if the executive director fails to submit the CAIR NO<sub>x</sub> allowance allocations by the applicable deadline in  $\S101.504(b)$ , EPA would assume that no CAIR NO<sub>x</sub> allowances are to be allocated, for the applicable control period, to any CAIR NO<sub>x</sub> unit that would otherwise receive an allocation from the new unit set-aside.

Section 101.506, Clean Air Interstate Rule Oxides of Nitrogen Allowance Allocations

Proposed new \$101.506 describes the methodology to be used in distributing CAIR NO<sub>x</sub> allowances, in tons, for each CAIR NO<sub>x</sub> unit subject to this division. For units commencing operation before January 1, 2001, CAIR NO<sub>x</sub> allowances would be allocated based on a three-year average historical heat input, in MMBtu, adjusted for the type of fuel burned. For each control period in 2009 - 2015, the baseline heat input for units commencing operation before January 1, 2001, would be the average of the three highest amounts of the unit's historical heat input, adjusted for fuel type, from calendar years 2000 - 2004. Beginning with the 2016 control period, and for the control period beginning every five years thereafter, the baseline heat input for units commencing operation prior to January 1, 2001, would be adjusted to reflect the average of the three highest amounts of the unit's control period heat input, adjusted for fuel type, from control periods one through five of the previous seven control periods. The fuel type adjustment would be performed by multiplying a unit's baseline heat input by the following: 90% for coal-fired, 50% for natural gas-fired, and 30% for all other fossil fuels.

For units commencing operation on or after January 1, 2001, CAIR NO<sub>x</sub> allowances would be allocated for each control period in 2009 - 2014 from the new unit set-aside identified under

§101.503(b). Beginning with the 2015 control period, units commencing operation on or after January 1, 2001, and operating each calendar year for a period of five or more consecutive years would be eligible to receive their CAIR NO<sub>x</sub> allowance allocation from the general NO<sub>x</sub> trading budget on a modified output basis. The baseline heat input would be the average of the three highest amounts of the unit's total converted control period heat input from the first five years of operation. Beginning with the 2016 control period, and for the control period beginning every five years thereafter, the baseline heat input would be adjusted to reflect the average of the three highest amounts of the unit's total converted control period heat input from control periods one through five of the previous seven control periods. To calculate a unit's converted control period heat input on a modified output basis, the unit's gross electrical output would be multiplied by a heat rate conversion factor of 7,900 British thermal units per kilowatt-hour (Btu/kWh) for coal-fired units and 6,675 Btu/kWh for natural gas- and oil-fired units. For cogeneration units, the converted heat input would be calculated by converting the available thermal output, in Btu, of useable steam to an equivalent heat input by dividing the thermal output by a general boiler/heat exchanger efficiency of 80%. For combustion turbine cogeneration units, the converted heat input would be calculated by first converting the available thermal output of useable steam from the heat recovery steam generator or heat exchanger to an equivalent heat input by dividing the thermal output by a general boiler/heat exchanger efficiency of 80%. Then the electrical generation from the combustion turbine must be added after conversion to an equivalent heat input by multiplying the electrical output by 3,413 Btu/kWh. The sum will yield the total equivalent heat input for the combustion turbine cogeneration unit.

The proposed allocation methodology would distribute 90.5% of the Texas NO<sub>x</sub> trading budget to each CAIR NO, unit with a baseline heat input determined under §101.506(a), (b)(2) or (3) in proportion to each CAIR NO<sub>x</sub> unit's share of baseline heat input to the total baseline heat input for all CAIR NO<sub>x</sub> units with a baseline heat input determined under §101.506(a) or (b)(2) or (3). For units that commence operation on or after January 1, 2001, and that have not established a historical baseline heat input in accordance with §101.506(b)(2) or (3), CAIR NO<sub>x</sub> allowances would be allocated from the new unit set-aside beginning with the later of the 2009 control period or the first control period after the control period in which the new unit commences commercial operation. The proposed allocation methodology requires the executive director to distribute CAIR NO<sub>x</sub> allowances from the new unit set-aside upon receipt of a request from the CAIR designated representative for the CAIR NO<sub>x</sub> unit. Submittal of each request for a CAIR NO<sub>x</sub> allowance allocation from the new unit set-aside would be required on or before July 1 of the first control period for which the request is being made and after the date that the CAIR NO<sub>v</sub> unit commences commercial operation. CAIR NO<sub>v</sub> allowances requested from the new unit set-aside would not be allocated in excess of the new unit's total tons of NO<sub>x</sub> emissions reported to EPA for the previous control period. On or after July 1 of each control period, the executive director would review each CAIR NO<sub>x</sub> allowance allocation request, determine the sum of all CAIR NO<sub>x</sub> allowance allocation requests, and allocate CAIR NO<sub>x</sub> allowances from the new unit set-aside for the control period. If the amount of CAIR NO<sub>x</sub> allowances in the new unit setaside is greater than or equal to the sum of all CAIR NO<sub>x</sub> allowances requested, then the executive director would allocate the amount of CAIR NO<sub>x</sub> allowances requested. If the amount of CAIR NO<sub>x</sub> allowances in the new unit set-aside is less than the sum of all CAIR NO<sub>x</sub> allowances requested, then the executive director would allocate to each new CAIR NO<sub>x</sub> unit an amount of CAIR NO<sub>x</sub> allowances

in proportion to the amount of CAIR NO<sub>x</sub> allowances requested by a CAIR NO<sub>x</sub> unit to the total amount of CAIR NO, allowances requested by all CAIR NO, units. In the proposed allocation methodology, new units would begin receiving allowances from the set-aside for the control period immediately following the control period in which the new unit commences commercial operation based on the unit's emissions reported for the previous control period. Therefore, a CAIR NO<sub>x</sub> source operating a new unit would be required to hold allowances covering the emissions from the new unit for the control period in which the new unit commences commercial operation, but would not receive an allocation for that control period. CAIR NO, allowance allocations for a new unit in subsequent control periods would continue to be based on the unit's emissions from the previous control period until the unit establishes a baseline in accordance with §101.506(b)(2) or (3). Due to the timing requirements under §101.504 for submittal of CAIR NO<sub>x</sub> allowance allocations to EPA, a new unit that has established its baseline under §101.506(b)(2) or (3) would begin receiving a CAIR NO<sub>x</sub> allowance allocation from the general NO<sub>x</sub> trading budget for the control period beginning two years after completion of the new unit's first five consecutive years of operation. For example, a new unit completes its first five consecutive years of operation at the end of the 2015 control period. The new unit would begin receiving CAIR NO<sub>x</sub> allowances from the general NO<sub>x</sub> trading budget beginning with the 2018 control period since the CAIR NO<sub>x</sub> allowance allocations for the 2016 and 2017 control periods would have been submitted to EPA by June 1, 2014, and June 1, 2015, respectively. All CAIR NO<sub>x</sub> allowance allocations under the proposed allocation methodology would be rounded to the nearest whole allowance.

Proposed new \$101.506 would allow for the distribution of any unallocated CAIR NO<sub>x</sub> allowances remaining in the new unit set-aside for a given control period to CAIR NO<sub>x</sub> units with a historical baseline heat input receiving an allocation under \$101.506(c). These existing units will each receive an additional allocation proportional to the ratio of its original allocation to the state's existing unit allocation, 90.5% of the Texas NO<sub>x</sub> trading budget. This distribution would be performed by multiplying the amount of unallocated CAIR NO<sub>x</sub> allowances remaining in the set-aside by each CAIR NO<sub>x</sub> unit's allocation determined under \$101.506(c), divided by 90.5% of the Texas NO<sub>x</sub> trading budget, and rounded to the nearest whole allowance.

Proposed new §101.506 would also require, for the purposes of determining CAIR NO<sub>x</sub> allowance allocations, a CAIR NO<sub>x</sub> unit's control period heat input, status as coal-fired or natural gas-fired, and total tons of NO<sub>x</sub> emissions during a calendar year to be determined in accordance with 40 CFR Part 75, to the extent the unit was otherwise subject to those requirements for the year. If a CAIR NO<sub>x</sub> unit was not otherwise subject to the requirements of 40 CFR Part 75 for the year, the unit's control period heat input, status as coal-fired or natural gas-fired, and total tons of NO<sub>x</sub> emissions during a calendar year will be based on the best available data reported to the executive director.

Section 101.508, Compliance Supplement Pool

Proposed new §101.508 would outline the requirements for the allocation of additional CAIR NO<sub>x</sub> allowances for the 2009 control period from the compliance supplement pool for Texas provided under 40 CFR §96.140. As promulgated on May 12, 2005, 40 CFR §96.140 provides Texas with an additional 772 CAIR NO<sub>x</sub> allowances under the compliance supplement pool. The proposed rule would

allow the compliance supplement pool allowances to be distributed to those CAIR NO<sub>x</sub> units that achieve early NO<sub>x</sub> reductions in 2007 and 2008, beyond any applicable state or federal emission limitation during those years. CAIR NO<sub>x</sub> units seeking an additional allocation from the compliance supplement pool for early NO<sub>x</sub> reductions in 2007 and 2008 would be required to monitor and report the unit's NO<sub>x</sub> emission rate and heat input in accordance with the continuous emissions monitoring and reporting requirements under 40 CFR Part 96, Subpart HH for the entire control period in which the early reductions are being generated. The CAIR designated representative would be required to submit to the executive director by July 1, 2009, a request for an allocation of CAIR NO<sub>x</sub> allowances from the compliance supplement pool in an amount not to exceed the sum of the CAIR NO<sub>x</sub> unit's emission reductions, in tons, during 2007 and 2008, that were not necessary to comply with any state or federal emission limitation applicable during those years.

In addition, the proposed new §101.508 would provide for the allocation of additional CAIR NO<sub>x</sub> allowances from the compliance supplement pool for CAIR NO<sub>x</sub> units whose compliance with the CAIR NO<sub>x</sub> annual trading program in the 2009 control period would create undue risk to the reliability of electricity supply during 2009. The CAIR designated representative would be required to submit to the executive director by July 1, 2009, a request for an allocation of CAIR NO<sub>x</sub> allowances from the compliance supplement pool in an amount not to exceed the minimum amount of CAIR NO<sub>x</sub> allowances necessary to remove the risk to the reliability of electricity supply. In such requests, the CAIR designated representative would be required to demonstrate that in the absence of the additional allocation to the unit, the unit's compliance with the CAIR NO<sub>x</sub> annual trading program during the 2009 control period would create an undue risk to electric reliability during 2009. This demonstration

would be required to show that it would not be feasible to obtain a sufficient amount of electricity from other electric generation facilities or obtain a sufficient amount of CAIR  $NO_x$  allowances from the compliance supplement pool by making early  $NO_x$  reductions in 2007 and 2008.

The executive director would review each request for an additional allocation from the compliance supplement pool and, if approved, allocate CAIR NO<sub>x</sub> allowances for the 2009 control period to CAIR NO<sub>x</sub> units covered by a request. If the amount of CAIR NO<sub>x</sub> allowances in the compliance supplement pool is greater than or equal to the sum of all CAIR NO<sub>x</sub> allowances requested, then the executive director would allocate the amount of CAIR NO<sub>x</sub> allowances requested. If the amount of CAIR NO<sub>x</sub> allowances in the compliance supplement pool is less than the sum of all CAIR NO<sub>x</sub> allowances requested, then the executive director would allocate to each CAIR NO<sub>x</sub> unit covered under a request an amount of CAIR NO<sub>x</sub> allowances in proportion to the amount of CAIR NO<sub>x</sub> allowances requested by a CAIR NO<sub>x</sub> unit to the total amount of CAIR NO<sub>x</sub> allowances requested by all CAIR NO<sub>x</sub> units. The proposed rule would require the executive director to determine and submit to EPA by November 30, 2009, the CAIR NO<sub>x</sub> allowance allocations from the compliance supplement pool.

## FISCAL NOTE: COSTS TO STATE AND LOCAL GOVERNMENT

Nina Chamness, Analyst, Strategic Planning and Assessment Section, determined that for the first five-year period the proposed new rules are in effect, no fiscal implications are anticipated for the agency or other units of state government as a result of the administration or enforcement of the proposed new rules. Local governments owning EGUs with a nameplate capacity of more than 25

MWe used to produce electricity for sale may experience adverse fiscal implications as a result of the proposed new rules.

On May 12, 2005, EPA issued the CAIR mandating 28 states in the eastern United States and the District of Columbia to reduce SO<sub>2</sub> and NO<sub>x</sub> emissions to assist nonattainment areas in downwind states achieve compliance with the NAAQS for PM<sub>2.5</sub>. Both SO<sub>2</sub> and NO<sub>x</sub> contribute to the formation of particulate matter and ozone. CAIR will be implemented in two phases, and each phase requires a progressive reduction of SO<sub>2</sub> and NO<sub>x</sub> emissions. CAIR establishes an emissions budget for SO<sub>2</sub> and NO<sub>x</sub> in these states and uses a market-based cap and trade system to achieve emission reductions. Principally, CAIR calls upon the electric power generation industry to achieve these reductions. EPA anticipates that the CAIR and CAMR will create an effective multi-state strategy, the goal of which is to better protect public health and the environment without interfering with the steady flow of affordable energy.

The proposed new rules, as required by HB 2481, implement the CAIR model trading rule for both  $SO_2$  and  $NO_x$  and outlines specific methodologies and procedures for determining how the allocation of CAIR  $NO_x$  allowances will be done throughout the state. The statewide emission budgets for  $NO_x$  and  $SO_2$  are provided in two phases. For  $NO_x$ , Phase I runs from 2009 - 2014, and has an annual allowance budget of 181,014 tons. For  $SO_2$ , Phase I annual emission budgets of 320,946 tons start in 2010 and end in 2014. Phase II annual emission budgets for  $NO_x$  and  $SO_2$  start in 2015, and continue every year thereafter. The Phase II annual emission budget is 150,845 tons for  $NO_x$  and 224,662 for  $SO_2$ .

EPA assessments of the interstate transport of air pollution and available air pollution control measures indicate that a cost-effective manner to achieve the desired reduction of  $SO_2$  and  $NO_x$  emissions can be accomplished by controlling emissions from power plants in the affected region. Staff estimated that there are 400 EGUs statewide that will be affected by the proposed new rules. Of those 400 EGUs, approximately 48 are owned by local governments and 352 are owned by large businesses.

Local governments owning the 48 EGUs have two options to comply with the emissions limits established by CAIR as implemented by the proposed rules: utilize control technology to reduce emissions; or purchase allowances in order to cover emissions that exceed their allocations. The NO<sub>x</sub> cap must be met starting March 1, 2010, and the SO<sub>2</sub> cap must be met by March 1, 2011. The method chosen by each local government to comply with its cap will depend on whether it is more cost efficient to install additional controls or purchase allowances from others.

The cost of reducing emissions with additional controls can vary widely and generally becomes more expensive as higher rates of emission reduction are achieved. In addition to capital equipment costs, municipalities must consider the associated operation and maintenance costs of the additional controls, as well as required monitoring costs. Most units are unlikely to install additional controls until Phase II reductions are required, contributing to some uncertainty about costs.

The cost of purchasing allowances can also vary significantly depending on the supply of and demand for allowances. EPA projects the 2010 allowance price will be approximately \$600 per ton for SO<sub>2</sub>

and \$1,200 per ton for  $NO_x$ . Allowance costs are projected to increase to \$900 per ton and \$1,500 per ton in 2015, for  $SO_2$  and  $NO_x$ , respectively.

If a local government wishes to install additional controls, EPA estimates that additional controls for  $NO_x$  in a coal-fired unit may cost as much as \$900 to \$1,500 per ton and \$1,200 to \$2,000 per ton for a gas-fired unit to achieve 80% removal of  $NO_x$ . Control costs for  $SO_2$  emissions using dry flue gas desulfurization is approximately \$400 to \$800 per ton and \$400 to \$700 per ton for wet flue gas desulfurization to achieve 90% removal of  $SO_2$ .

Regardless of how a municipality chooses to control its emissions, CAIR also requires the municipality to install and operate a continuous emissions monitoring system. Since the Acid Rain Program already requires monitoring, the cost to install and operate a continuous emissions monitoring system may only require software upgrades to an existing system. The cost to upgrade the system software as needed is estimated to be \$6,300. A continuous emissions monitoring system for a new coal-fired unit will cost approximately \$163,000 for capital equipment and \$39,000 for operations and maintenance of the system. A continuous emissions monitoring system for a baseload gas- or oil-fired unit that has not been previously subject to the Acid Rain Program or that is a new unit is estimated to cost \$127,000 for equipment with operations and maintenance of the equipment costing \$26,000. For gas- or oil-fired peaking units, the capital cost for a continuous emissions monitoring system is estimated to be \$21,000.

# PUBLIC BENEFITS AND COSTS

Ms. Chamness also determined that for each year of the first five years the proposed new rules are in effect, the public benefit anticipated from the changes seen in the proposed new rules will be reduced  $SO_2$  and  $NO_x$  emissions and greater protection of human health and the environment.

Staff estimated that there are 400 EGUs statewide that will be affected by the proposed new rules. Of those 400 EGUs, approximately 352 are thought to be owned by large businesses.

Large businesses, like local governments, will have the same options to either purchase allowances for excess emissions or install additional emission controls. Large businesses will incur monitoring costs associated with continuous emissions monitoring systems. Operations and maintenance costs for continuous emissions monitoring systems or for additional control technologies, if chosen, must also be considered. Large businesses will experience the same costs for allowance purchases, capital equipment purchases, and operations and maintenance costs as those experienced by local governments.

## SMALL BUSINESS AND MICRO-BUSINESS ASSESSMENT

No adverse fiscal implications are anticipated for small or micro-businesses. None of the 400 EGUs that will be affected by the proposed new rules are known to be owned or operated by small or micro-businesses. If there are small or micro-businesses affected by the proposed new rules, they will experience the same costs for capital, maintenance, monitoring, and purchasing allowances as those experienced by local governments and large businesses.

# LOCAL EMPLOYMENT IMPACT STATEMENT

The commission reviewed this proposed rulemaking and determined that a local employment impact statement is not required because the proposed new rules do not adversely affect a local economy in a material way for the first five years that the proposed new rules are in effect.

#### DRAFT REGULATORY IMPACT ANALYSIS DETERMINATION

The commission reviewed the proposed rulemaking in light of the regulatory impact analysis requirements of the Texas Government Code, §2001.0225, and determined that the proposed rulemaking meets the definition of a "major environmental rule" as defined in that statute. A "major environmental rule" means a rule, the specific intent of which is to protect the environment or reduce risks to human health from environmental exposure, and that may adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, or the public health and safety of the state or a sector of the state. The proposed rulemaking does not, however, meet any of the four applicability criteria for requiring a regulatory impact analysis for a major environmental rule, which are listed in Texas Government Code, §2001.0225(a). Texas Government Code, §2001.0225, applies only to a major environmental rule, the result of which is to: 1) exceed a standard set by federal law, unless the rule is specifically required by state law; 2) exceed an express requirement of state law, unless the rule is specifically required by federal law; 3) exceed a requirement of a delegation agreement or contract between the state and an agency or representative of the federal government to implement a state and federal program; or 4) adopt a rule solely under the general powers of the agency instead of under a specific state law.

The proposed new rules are an incorporation by reference of the federal CAIR. The CAIR includes EPA-administered emissions trading programs that will be governed by model rules provided in the CAIR, which states may incorporate by reference. The EPA found that Texas is among several states that contribute significantly to nonattainment of the NAAQS for PM<sub>2.5</sub> in downwind states. The EPA is requiring these upwind states to revise their SIPs to include control measures to reduce emissions of SO<sub>2</sub> and/or NO<sub>x</sub>, which are precursors to PM<sub>2.5</sub> formation. Reducing upwind precursor emissions will assist downwind PM<sub>2.5</sub> nonattainment areas to achieve the NAAQS in a more equitable, cost-effective manner than if those areas implemented local emissions reductions alone. The EPA has specified the amount of each state's required reductions, but each state has flexibility to choose the measures by which it achieves them. If states choose to control EGUs, then they must establish a budget or cap for those sources. The CAIR defines the EGU budgets for the affected states if the states choose to control only EGUs or if they choose to control other sources to achieve some or all of their reductions. States may adopt the CAIR NO<sub>x</sub> model allowance allocation methodology or choose an alternative method to allocate the state budget of NO<sub>x</sub> emissions allowances to sources in the state.

Specifically, the proposed rulemaking would incorporate by reference the CAIR model emissions trading rules located in 40 CFR Part 96, Subpart AA - Subpart II, and Subpart AAA - Subpart III. In addition, the rulemaking proposes an alternative NO<sub>x</sub> allowance allocation methodology for Texas CAIR NO<sub>x</sub> sources in lieu of the model rule methodology in 40 CFR Part 96, Subpart EE. The proposed rulemaking fulfills the requirements of HB 2481, enacted by the 79th Legislature, to incorporate CAIR by reference; to propose an alternate NO<sub>x</sub> allowance allocation methodology; to specify the sources to which the trading program is applicable; to set the timing requirements to report

annual unit allocations to EPA; to detail the operation of the compliance supplement pool; to specify that a percentage of the state's annual allocation will be set-aside for new units; and to provide that allowances will be available at no cost.

The incorporation of CAIR will require emission reductions from certain new and existing stationary, fossil fuel-fired electric utility units, including boilers and combustion turbines, and certain cogeneration units that meet specific applicability criteria. The proposed incorporation of the federal rule is intended to protect the environment and to reduce risks to human health and safety from environmental exposure by reducing NO<sub>x</sub> and SO<sub>2</sub> emissions from upwind states so that downwind states may reach attainment of the NAAQS for PM<sub>2.5</sub>. The CAIR includes revisions to the Acid Rain Program regulations under FCAA, Title IV, particularly the regulatory provisions governing the SO<sub>2</sub> cap and trade program. The revisions streamline the operation of the acid rain SO<sub>2</sub> cap and trade program and facilitate its interaction with the CAIR trading program. While the required emissions reductions of these programs are based on controls that are known to be highly cost effective for EGUs, the requirements may have adverse impacts on certain utilities, which could be considered a sector of the economy. The exact cost to each unit cannot be predicted, but significant costs to comply with the emission reductions programs may be expected for at least some units that install or upgrade emission controls or that purchase allowances. While the proposed rulemaking is intended to protect human health and the environment, it may adversely affect in a material way sources in the state that fall under the applicability requirements in the federal rule. Cost and benefits of the CAIR were analyzed by EPA during the federal notice and comment rulemaking for the CAIR. CAIR is a required federal program, and the ability of states to modify its requirements is limited.

The proposed rulemaking would implement requirements of the FCAA. Under 42 United States Code (USC), §7410(a)(2)(D), each SIP must contain adequate provisions prohibiting any source within the state from emitting any air pollutant in amounts that will contribute significantly to nonattainment of the NAAQS in any other state. While 42 USC, §7410 generally does not require specific programs, methods, or reductions in order to meet the standard, SIPs must include "enforceable emission limitations and other control measures, means or techniques (including economic incentives such as fees, marketable permits, and auctions of emissions rights), as well as schedules and timetables for compliance as may be necessary or appropriate to meet the applicable requirements of this chapter," (42 USC, Chapter 85, Air Pollution Prevention and Control). The provisions of the FCAA recognize that states are in the best position to determine what programs and controls are necessary or appropriate in order to meet the NAAQS. This flexibility allows states, affected industry, and the public, to collaborate on the best methods for attaining the NAAQS for the specific regions in the state. Even though the FCAA allows states to develop their own programs, this flexibility does not relieve a state from developing a program that meets the requirements of 42 USC, §7410. States are not free to ignore the requirements of 42 USC, §7410, and must develop programs to assure that their contributions to nonattainment areas are reduced so that these areas can be brought into attainment on schedule. Additionally, states have further obligations under 42 USC, §7410(a)(2)(D), to address interstate transport of pollutants that contribute significantly to nonattainment in, or interfere with maintenance by, another state. In the CAIR, EPA found that 28 states and the District of Columbia contribute significantly to nonattainment of the PM<sub>2.5</sub> or eight-hour ozone NAAQS in downwind areas. The EPA is requiring these upwind states to revise their SIPs to include control measures to reduce emissions of SO<sub>2</sub> and/or NO<sub>x</sub>, with limited flexibility. Adoption of the federal CAIR and participation

in its emissions cap and trade approach for annual  $SO_2$  and  $NO_x$  emissions to reduce downwind  $PM_{2.5}$  is the method the state has chosen to achieve those reductions in a flexible and cost-effective manner.

The requirement to provide a fiscal analysis of proposed regulations in the Texas Government Code was amended by Senate Bill (SB) 633 during the 75th Legislature, 1997. The intent of SB 633 was to require agencies to conduct a regulatory impact analysis of extraordinary rules. These are identified in the statutory language as major environmental rules that will have a material adverse impact and will exceed a requirement of state law, federal law, or a delegated federal program, or are adopted solely under the general powers of the agency. With the understanding that this requirement would seldom apply, the commission provided a cost estimate for SB 633 that concluded "based on an assessment of rules adopted by the agency in the past, it is not anticipated that the bill will have significant fiscal implications for the agency due to its limited application." The commission also noted that the number of rules that would require assessment under the provisions of the bill was not large. This conclusion was based, in part, on the criteria set forth in the bill that exempted proposed rules from the full analysis unless the rule was a major environmental rule that exceeds a federal law.

As discussed earlier in this preamble, the FCAA does not always require specific programs, methods, or reductions in order to meet the NAAQS; thus, states must develop programs for each area contributing to nonattainment to help ensure that those areas will meet the attainment deadlines.

Because of the ongoing need to address nonattainment issues, and to meet the requirements of 42 USC, \$7410, the commission routinely proposes and adopts SIP rules. The legislature is presumed to understand this federal scheme. If each rule proposed for inclusion in the SIP was considered to be a

major environmental rule that exceeds federal law, then every SIP rule would require the full regulatory impact analysis contemplated by SB 633. This conclusion is inconsistent with the conclusions reached by the commission in its cost estimate and by the Legislative Budget Board (LBB) in its fiscal notes. Since the legislature is presumed to understand the fiscal impacts of the bills it passes, and that presumption is based on information provided by state agencies and the LBB, the commission believes that the intent of SB 633 was only to require the full regulatory impact analysis for rules that are extraordinary in nature. While the SIP rules will have a broad impact, that impact is no greater than is necessary or appropriate to meet the requirements of the FCAA. For these reasons, rules adopted for inclusion in the SIP fall under the exception in Texas Government Code, §2001.0225(a), because they are required by federal law.

The commission has consistently applied this construction to its rules since this statute was enacted in 1997. Since that time, the legislature has revised the Texas Government Code, but left this provision substantially unamended. It is presumed that "when an agency interpretation is in effect at the time the legislature amends the laws without making substantial change in the statute, the legislature is deemed to have accepted the agency's interpretation." *Central Power & Light Co. v. Sharp*, 919 S.W.2d 485, 489 (Tex. App. Austin 1995), writ denied with per curiam opinion respecting another issue, 960 S.W.2d 617 (Tex. 1997); *Bullock v. Marathon Oil Co.*, 798 S.W.2d 353, 357 (Tex. App. Austin 1990, no writ). *Cf. Humble Oil & Refining Co. v. Calvert*, 414 S.W.2d 172 (Tex. 1967); *Dudney v. State Farm Mut. Auto Ins. Co.*, 9 S.W.3d 884, 893 (Tex. App. Austin 2000); *Southwestern Life Ins. Co. v. Montemayor*, 24 S.W.3d 581 (Tex. App. Austin 2000, pet. denied); and *Coastal Indust. Water Auth. v. Trinity Portland Cement Div.*, 563 S.W.2d 916 (Tex. 1978).

The commission's interpretation of the regulatory impact analysis requirements is also supported by a change made to the Texas Administrative Procedure Act (APA) by the legislature in 1999. In an attempt to limit the number of rule challenges based upon APA requirements, the legislature clarified that state agencies are required to meet these sections of the APA against the standard of "substantial compliance." The legislature specifically identified Texas Government Code, §2001.0225, as falling under this standard. The commission has substantially complied with the requirements of Texas Government Code, §2001.0225.

The specific intent of the proposed rulemaking is to protect the environment and to reduce risks to human health by adoption of the federal CAIR by reference, and to specify some components of the trading program for which the federal rule allows for flexibility of choice by the state. The proposed rulemaking does not exceed a standard set by federal law or exceed an express requirement of state law. No contract or delegation agreement covers the topic that is the subject of this proposed rulemaking. Finally, this proposed rulemaking was not developed solely under the general powers of the agency, but is required by the THSC, TCAA, §382.0173. Therefore, this proposed rulemaking is not subject to the regulatory analysis provisions of Texas Government Code, §2001.0225(b), because although the proposed rulemaking meets the definition of a "major environmental rule," it does not meet any of the four applicability criteria for a major environmental rule.

The commission invites public comment regarding the draft regulatory impact analysis determination during the public comment period.

# TAKINGS IMPACT ASSESSMENT

The commission evaluated the proposed rulemaking and performed an assessment of whether Texas Government Code, Chapter 2007, is applicable. The specific purpose of the proposed rulemaking is to incorporate by reference the federal CAIR emissions trading rules located in 40 CFR Part 96, Subpart AA - Subpart II and Subpart AAA - Subpart III, and to specify some components of the trading program for which the federal rule allows for flexibility of choice by the state. The 79th Legislature enacted HB 2481, which created a requirement in THSC, TCAA, §382.0173 to adopt the federal CAIR program rules by reference. Texas Government Code, §2007.003(b)(4), provides that Texas Government Code, Chapter 2007 does not apply to this proposed rulemaking because it is an action reasonably taken to fulfill an obligation mandated by federal law and by state law.

In addition, the commission's assessment indicates that Texas Government Code, Chapter 2007 does not apply to these proposed rules because this is an action that is taken in response to a real and substantial threat to public health and safety; that is designed to significantly advance the health and safety purpose; and that does not impose a greater burden than is necessary to achieve the health and safety purpose. Thus, this action is exempt under Texas Government Code, §2007.003(b)(13). EPA promulgated the CAIR rule to reduce NO<sub>x</sub> and SO<sub>2</sub> emissions from upwind states so that downwind states may reach attainment of the NAAQS for PM<sub>2.5</sub>. The proposed rules will enable Texas to implement the federal emissions budget and trading program and impose its requirements on new and existing fossil fuel-fired electric utility units, ultimately ensuring reductions of NO<sub>x</sub> and SO<sub>2</sub> emissions. The action will specifically advance the health and safety purpose by reducing PM<sub>2.5</sub> levels through an emissions cap and gradual reductions in emissions of NO<sub>x</sub> and SO<sub>2</sub>. The rules specifically target a

category of sources with significant  $NO_x$  and  $SO_2$  emissions, and through the cap and trade program support cost-effective control strategies. Consequently, the proposed rulemaking meets the exemption criteria in Texas Government Code,  $\S 2007.003(b)(4)$  and  $\S 2007.003$ 

#### CONSISTENCY WITH THE COASTAL MANAGEMENT PROGRAM

The commission determined that this rulemaking action relates to an action or actions subject to the Texas Coastal Management Program (CMP) in accordance with the Coastal Coordination Act of 1991, as amended (Texas Natural Resources Code, §§33.201 et seq.), and the commission rules in 30 TAC Chapter 281, Subchapter B, concerning Consistency with the Texas CMP. As required by §281.45(a)(3) and 31 TAC §505.11(b)(2), concerning Actions and Rules Subject to the Coastal Management Program, commission rules governing air pollutant emissions must be consistent with the applicable goals and policies of the CMP. The commission reviewed this action for consistency with the CMP goals and policies in accordance with the rules of the Coastal Coordination Council, and determined that the action is consistent with the applicable CMP goals and policies. The CMP goal applicable to this rulemaking action is the goal to protect, preserve, and enhance the diversity, quality, quantity, functions, and values of coastal natural resource areas (31 TAC §501.12(1)). No new sources of air contaminants will be authorized and the proposed new rules will maintain at least the same level of or increase the level of emissions control as the existing rules. The CMP policy applicable to this rulemaking action is the policy that commission rules comply with federal regulations in 40 CFR, to protect and enhance air quality in the coastal areas (31 TAC §501.32). This proposed rulemaking action complies with 40 CFR Part 51, concerning Requirements for Preparation, Adoption, and

Submittal of Implementation Plans. Therefore, in accordance with 31 TAC §505.22(e), the commission affirms that this rulemaking action is consistent with CMP goals and policies.

The commission solicits comments on the consistency of the proposed rulemaking with the CMP during the public comment period.

EFFECT ON SITES SUBJECT TO THE FEDERAL OPERATING PERMITS PROGRAM

The requirements of 42 USC, §7410 are applicable requirements of 30 TAC Chapter 122. Facilities that are subject to the Federal Operating Permit Program will be required to obtain, revise, reopen, and renew their federal operating permits as appropriate in order to include CAIR.

#### ANNOUNCEMENT OF HEARINGS

Public hearings for this proposed rulemaking have been scheduled in Austin on April 11, 2006, at 2:00 p.m. in Building E, Room 201S at the Texas Commission on Environmental Quality complex located at 12100 Park 35 Circle; in Fort Worth on April 12, 2006, at 2:00 p.m. at the Texas Commission on Environmental Quality Regional Office, located at 2309 Gravel Drive; and in Houston on April 13, 2006, at 2:00 p.m. at the Texas Commission on Environmental Quality Regional Office, located at 5425 Polk Street, Suite H, 3rd Floor. The hearings will be structured for the receipt of oral or written comments by interested persons. Registration will begin 30 minutes prior to each hearing. Individuals may present oral statements when called upon in order of registration. A four-minute time limit may be established at each hearing to assure that enough time is allowed for every interested person to speak. There will be no open discussion during each hearing; however, commission staff members

will be available to discuss the proposal 30 minutes before each hearing and will answer questions after each hearing.

Persons who have special communication or other accommodation needs who are planning to attend a hearing should contact Patricia Durón, Office of Legal Services at (512) 239-6087. Requests should be made as far in advance as possible.

## SUBMITTAL OF COMMENTS

Comments may be submitted to Patricia Durón, Texas Register Team, Office of Legal Services, Texas Commission on Environmental Quality, MC 205, P.O. Box 13087, Austin, Texas 78711-3087, or faxed to (512) 239-4808. All comments should reference Rule Project Number 2005-046-101-EN. Comments must be received by 5:00 p.m., April 17, 2006. Copies of the proposed rules can be obtained from the commission's Web site at <a href="http://www.tceq.state.tx.us/nav/rules/propose\_adopt.html">http://www.tceq.state.tx.us/nav/rules/propose\_adopt.html</a>. For further information, please contact Kim Herndon, Air Quality Planning Section, (512) 239-1421.

#### SUBCHAPTER H: EMISSIONS BANKING AND TRADING

#### **DIVISION 7: CLEAN AIR INTERSTATE RULE**

## §§101.501 - 101.504, 101.506, 101.508

#### STATUTORY AUTHORITY

The new sections are proposed under Texas Water Code, §5.103, concerning Rules, and §5.105, concerning General Policy, which authorize the commission to adopt rules necessary to carry out its powers and duties under the Texas Water Code; and under THSC, §382.017, concerning Rules, which authorizes the commission to adopt rules consistent with the policy and purposes of the TCAA. The new sections are also proposed under THSC, §382.002, concerning Policy and Purpose, which establishes the commission's purpose to safeguard the state's air resources, consistent with the protection of public health, general welfare, and physical property; §382.011, concerning General Powers and Duties, which authorizes the commission to control the quality of the state's air; §382.012, concerning State Air Control Plan, which authorizes the commission to prepare and develop a general, comprehensive plan for the control of the state's air; §382.014, concerning emission inventory; §382.016, concerning Monitoring Requirements; HB 2481, §2 of the 79th Legislature, to be codified at §382.0173, concerning adoption of rules regarding certain SIP requirements and standards of performance for certain sources; and §382.054, concerning federal operating permits; and FCAA, 42 USC, §§7401 et seq., which requires states to include in their SIPs adequate provisions prohibiting any source within the state from emitting any air pollutant in amounts that will contribute significantly to nonattainment, or interfere with maintenance of, the NAAQS in any other state.

The proposed new sections implement THSC, §§382.002, 382.011, 382.012, 382.014, 382.016, HB 2481, §2 of the 79th Legislature, to be codified at §382.0173, and §382.054; and FCAA, 42 USC, §§7401 *et seq*.

# §101.501. Applicability.

This division applies to any stationary, fossil fuel-fired boiler or stationary, fossil fuel-fired combustion turbine meeting the applicability requirements under 40 Code of Federal Regulations Part 96, Subpart AA or Subpart AAA.

## §101.502. Clean Air Interstate Rule Trading Program.

- (a) The commission incorporates by reference, except as specified in this division, the provisions of 40 Code of Federal Regulations (CFR) Part 96, Subpart AA Subpart II and Subpart AAA Subpart III (as amended through May 12, 2005 (70 FR 25162)) for purposes of implementing the Clean Air Interstate Rule trading programs for annual emissions of oxides of nitrogen and sulfur dioxide to meet the requirements of Federal Clean Air Act, §110(a)(2)(D).
- (b) Owners and operators of sources subject to 40 CFR Part 96, Subpart AA Subpart II or Subpart AAA Subpart III shall comply with those requirements.

Allowance Allocations) by the following dates:

Rule Project No. 2005-046-101-EN
(c) The methodologies and procedures for determining and recording each subject source's
Clean Air Interstate Rule oxides of nitrogen allowance allocation in 40 CFR Part 96, Subpart EE are
replaced by the requirements of this division.
§101.503. Clean Air Interstate Rule Oxides of Nitrogen Annual Trading Budget.
(a) The oxides of nitrogen (NO <sub>x</sub> ) trading budget for annual allocations of Clean Air Interstate
Rule NO <sub>x</sub> allowances for the control periods in 2009 - 2014 and in 2015, and thereafter, shall be
equivalent to the tons of NO <sub>x</sub> emissions listed for Texas in the state trading budget under 40 Code of
Federal Regulations §96.140.
(b) A total amount of Clean Air Interstate Rule NO <sub>x</sub> allowances equal to 9.5% of the NO <sub>x</sub>
trading budget identified under subsection (a) of this section must be set-aside for allocation to new
units.
§101.504. Timing Requirements for Clean Air Interstate Rule Oxides of Nitrogen Allowance
Allocations.
(a) The executive director shall submit to the United States Environmental Protection Agency

(EPA) the Clean Air Interstate Rule (CAIR) oxides of nitrogen (NO<sub>x</sub>) allowance allocations determined

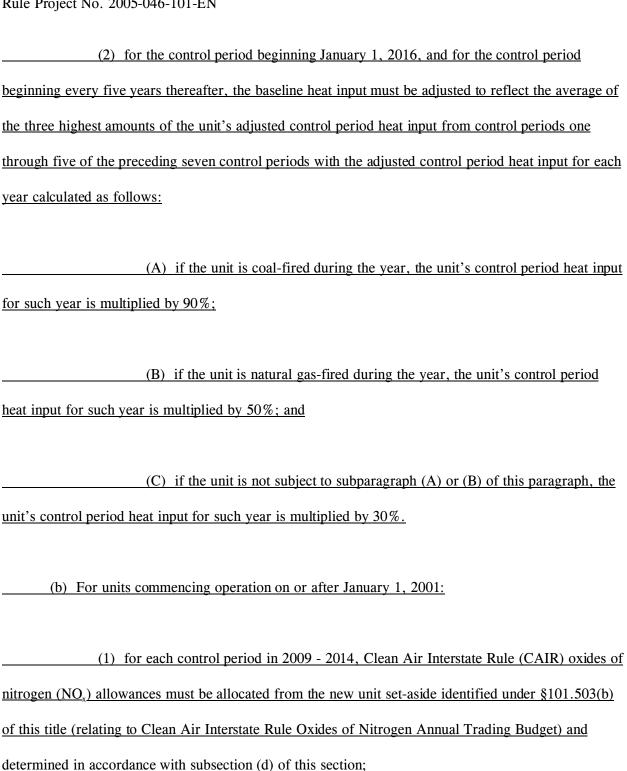
in accordance with §101.506(c) of this title (relating to Clean Air Interstate Rule Oxides of Nitrogen

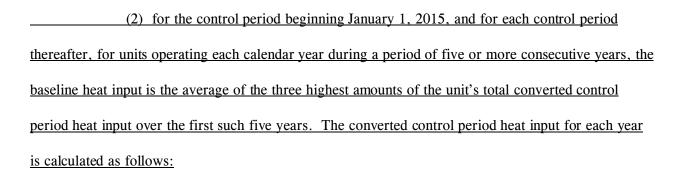
(1) October 31, 2006, for the 2009 - 2014 control periods;  (2) June 1, 2011, for the 2015 control period;  (3) June 1, 2014, for the 2016 control period; and  (4) 18 months prior to the beginning of each applicable control period for the control period beginning in 2017 and for each control period thereafter.
(3) June 1, 2014, for the 2016 control period; and  (4) 18 months prior to the beginning of each applicable control period for the control
(4) 18 months prior to the beginning of each applicable control period for the control
(b) For the control period beginning in 2009, and for each control period thereafter, the executive director shall submit to EPA the CAIR NO <sub>x</sub> allowance allocations determined in accordance with §101.506(d) and (e) of this title by October 31 of the applicable control period.
(c) If the executive director fails to submit to EPA the CAIR NO <sub>x</sub> allowance allocations in accordance with subsection (a) of this section, EPA will assume that the allocations of CAIR NO <sub>x</sub>
allowances for the applicable control period are the same as for the control period that immediately
precedes the applicable control period, except that, if the applicable control period is in 2015, EPA will
assume that the allocations equal 83% of the allocations for the control period that immediately
precedes the applicable control period.
(d) If the executive director fails to submit to EPA the CAIR NO <sub>x</sub> allowance allocations in accordance with subsection (b) of this section. EPA will assume that no CAIR NO <sub>x</sub> allowances are to

be allocated, for the applicable control period, to any CAIR NO<sub>x</sub> unit that would otherwise be allocated CAIR NO<sub>x</sub> allowances under §101.506(d) and (e) of this title.

§101.506. Clean Air Interstate Rule Oxides of Nitrogen Allowance Allocations.
(a) For units commencing operation before January 1, 2001:
(1) for each control period in 2009 - 2015, the baseline heat input, in million British
thermal units (MMBtu), is the average of the three highest amounts of the unit's adjusted control
period heat input for 2000 - 2004 with the adjusted control period heat input for each year calculated as
follows:
(A) if the unit is coal-fired during the year, the unit's control period heat input
for such year is multiplied by 90%;
(B) if the unit is natural gas-fired during the year, the unit's control period
heat input for such year is multiplied by 50%; and
(C) if the unit is not subject to subparagraph (A) or (B) of this paragraph, the

unit's control period heat input for such year is multiplied by 30%.





(A) except as provided in subparagraph (B) or (C) of this paragraph, the converted control period heat input equals the control period gross electrical output of the generator or generators served by the unit multiplied by 7,900 British thermal units per kilowatt-hour (Btu/kWh), if the unit is coal-fired for the year, or 6,675 Btu/kWh, if the unit is not coal-fired for the year, and divided by 1,000,000 Btu/MMBtu. If a generator is served by two or more units, then the gross electrical output of the generator must be attributed to each unit in proportion to the unit's share of the total control period heat input of such units for the year;

(B) for a unit that is a boiler and has equipment used to produce electricity and useful thermal energy for industrial, commercial, heating, or cooling purposes through the sequential use of energy, the converted heat input is the total heat energy (in Btu) of the steam produced by the boiler during the control period, divided by 0.8 and converted to MMBtu by dividing by 1,000,000 Btu/MMBtu; or

(C) for a unit that is a combustion turbine and has equipment used to produce electricity and useful thermal energy for industrial, commercial, heating, or cooling purposes through

the sequential use of energy, the converted heat input is determined using the equation in the following figure.

Figure: 30 TAC §101.506(b)(2)(C)

$$HI = \left[ (O \times 3,414 \, Btu/kWh) + \left( \frac{HB}{0.8} \right) \right] + 1,000,000 \, Btu/MMBtu$$

$$- \quad - \quad \text{Where:}$$

$$Btu = \text{British thermal units}$$

$$HE = \text{the total heat energy, in Btu, of the steam produced by any associated heat recovery steam generator during the control period.}$$

$$HI = \text{the converted heat input, in MMBtu, of the combustion turbine cogeneration unit.}$$

$$kWh = \text{kilowatt-hour}$$

$$MMBtu = \text{million British thermal units}$$

$$O = \text{the gross electrical output during the control period of the enclosed device comprising the compressor, combustor, and turbine.}$$

(3) for the control period beginning January 1, 2016, and for the control period beginning every five years thereafter, for units operating each calendar year during a period of five or more consecutive years, the baseline heat input shall be adjusted to reflect the average of the three highest amounts of the unit's converted control period heat input from control periods one through five

the following figure.

of the preceding seven control periods. The converted control period heat input for each year is calculated as follows: (A) except as provided in subparagraph (B) or (C) of this paragraph, the converted control period heat input equals the control period gross electrical output of the generator or generators served by the unit multiplied by 7,900 Btu/kWh, if the unit is coal-fired for the year, or 6,675 Btu/kWh, if the unit is not coal-fired for the year, and divided by 1,000,000 Btu/MMBtu, provided that if a generator is served by two or more units, then the gross electrical output of the generator must be attributed to each unit in proportion to the unit's share of the total control period heat input of such units for the year; (B) for a unit that is a boiler and has equipment used to produce electricity and useful thermal energy for industrial, commercial, heating, or cooling purposes through the sequential use of energy, the converted control period heat input equals the total heat energy (in Btu) of the steam produced by the boiler during the control period, divided by 0.8 and converted to MMBtu by dividing by 1,000,000 Btu/MMBtu; or (C) for a unit that is a combustion turbine and has equipment used to produce electricity and useful thermal energy for industrial, commercial, heating, or cooling purposes through the sequential use of energy, the converted control period heat input is determined using the equation in Figure: 30 TAC §101.506(b)(3)(C)

$$HI = \left[ \left( O \times 3,414 \, Btu/kWh \right) + \left( \frac{HE}{0.8} \right) \right] + 1,000,000 \, Btu/MMBtu$$

Where:

Btu = British thermal units

HE = the total heat energy, in Btu, of the steam produced by any associated heat recovery steam generator during the control period.

HI = the converted heat input, in MMBtu, of the combustion turbine

cogeneration unit.

kWh = kilowatt-hour

MMBtu = million British thermal units

O = the gross electrical output during the control period of the enclosed

device comprising the compressor, combustor, and turbine.

(c) For units with a baseline heat input calculated under subsection (a) or (b)(2) or (3) of this section, CAIR NO<sub>x</sub> allowances must be allocated according to the equation in the following figure.

Figure: 30 TAC §101.506(c)

$$A = \frac{HI}{\sum_{i=1}^{n} HIi} \times B$$

Where:

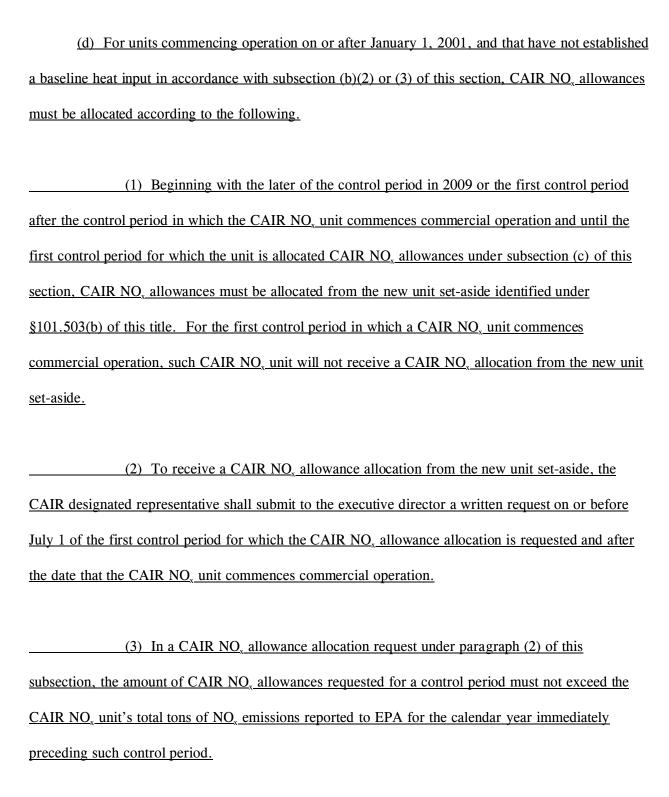
A = the amount of Clean Air Interstate Rule (CAIR) oxides of nitrogen  $(NO_x)$  allowances allocated to a CAIR  $NO_x$  unit rounded to the nearest whole allowance.

i = each CAIR NO<sub>x</sub> unit qualifying for an allocation under this subsection.

n = the total number of CAIR NO<sub>x</sub> units qualifying for an allocation under this subsection.

HI = the baseline heat input for a CAIR  $NO_x$  unit qualifying for an allocation under this subsection as calculated under subsection (a) or (b)(2) or (3) of this section.

B = a total amount of CAIR  $NO_x$  allowances equal to 90.5% of the  $NO_x$  trading budget identified in \$101.506(a) of this title, except as provided in subsection (e) of this section.



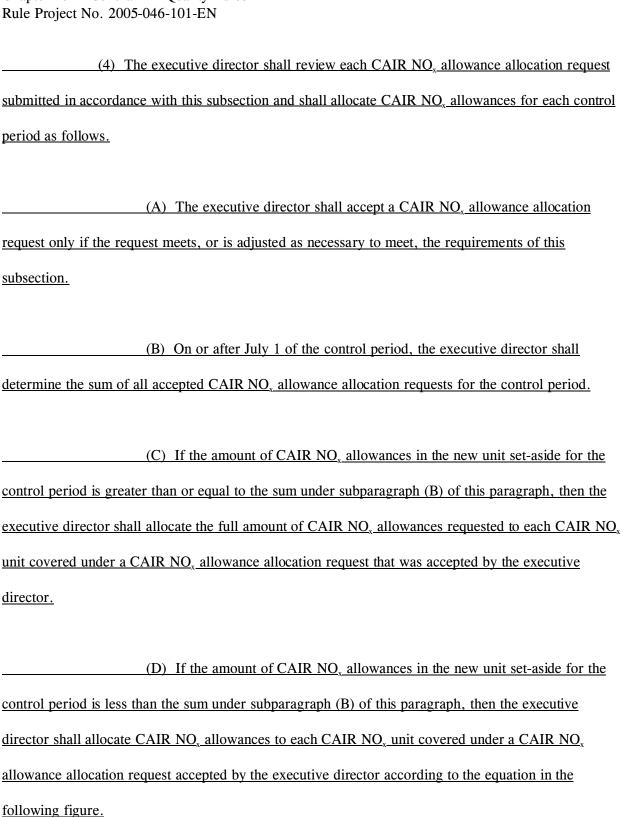


Figure: 30 TAC §101.506(d)(4)(D)

$$A = \frac{RQ}{\sum_{i=1}^{n} RQi} \times SA$$

Where:

A = the amount of Clean Air Interstate Rule (CAIR) oxides of nitrogen  $(NO_x)$  allowances, rounded to the nearest whole allowance, allocated to each CAIR  $NO_x$  unit covered under a CAIR  $NO_x$  allowance allocation request accepted by the executive director.

i = each CAIR NO<sub>x</sub> allowance allocation request accepted by the executive director.

n = the total number of CAIR NO<sub>x</sub> allowance allocation requests accepted by the executive director.

RQ = the amount of the CAIR  $NO_x$  allowances requested, as adjusted under subparagraph (A) of this paragraph, for each CAIR  $NO_x$  unit covered under a CAIR  $NO_x$  allowance allocation request accepted by the executive director.

SA = the total amount of CAIR  $NO_x$  allowances in the new unit set-aside identified under  $\S101.503(b)$  of this title (relating to Clean Air Interstate Rule Oxides of Nitrogen Annual Trading Budget.

(E) The executive director shall notify each CAIR designated representative who submitted a CAIR NO<sub>x</sub> allowance allocation request of the amount of CAIR NO<sub>x</sub> allowances, if any, allocated for the control period to the CAIR NO<sub>x</sub> unit covered under the request.

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(e) If, after completion of the procedures under subsection (d) of this section for a control period, any unallocated CAIR NO<sub>x</sub> allowances remain in the new unit set-aside for the control period, the executive director shall allocate to each CAIR NO<sub>x</sub> unit receiving an allocation under subsection (c) of this section an amount of CAIR NO<sub>x</sub> allowances equal to the total amount of such remaining unallocated CAIR NO<sub>x</sub> allowances, multiplied by the unit's allocation under subsection (c) of this section, divided by 90.5% of the NO<sub>x</sub> trading budget identified in subsection (a) of this section, and rounded to the nearest whole allowance as appropriate.

(f) A unit's control period heat input, and a unit's status as coal-fired or natural gas-fired, for a calendar year under subsection (a) of this section, and a unit's total tons of NO<sub>x</sub> emissions during a calendar year under subsection (d) of this section, must be determined in accordance with 40 Code of Federal Regulations (CFR) Part 75, to the extent the unit was otherwise subject to the requirements of 40 CFR Part 75 for the year, or must be based on the best available data reported to the executive director for the unit, to the extent the unit was not otherwise subject to the requirements of 40 CFR Part 75 for the year.

# §101.508. Compliance Supplement Pool.

(a) In addition to the Clean Air Interstate Rule (CAIR) oxides of nitrogen (NO<sub>x</sub>) allowances allocated under §101.506 of this title (relating to Clean Air Interstate Rule Oxides of Nitrogen

Allowance Allocations), the executive director may allocate for the control period in 2009 up to the

amount of CAIR NO<sub>x</sub> allowances listed as the compliance supplement pool for Texas under 40 Code of Federal Regulations (CFR) §96.140.

- (b) For any CAIR NO<sub>x</sub> unit that achieves NO<sub>x</sub> emission reductions in 2007 and 2008 that are not necessary to comply with any state or federal emissions limitation applicable during such years, the CAIR designated representative of the unit may request early reduction credits and allocation of CAIR NO<sub>x</sub> allowances from the compliance supplement pool under subsection (a) of this section for such early reduction credits, in accordance with the following.
- (1) The owners and operators of such CAIR NO<sub>x</sub> unit shall monitor and report the NO<sub>x</sub> emissions rate and the heat input of the unit in accordance with 40 CFR Part 96, Subpart HH for the entire control period for which early reduction credit is requested.
- (2) The CAIR designated representative of such CAIR NO<sub>x</sub> unit shall submit to the executive director by July 1, 2009, a written request for allocation of an amount of CAIR NO<sub>x</sub> allowances from the compliance supplement pool not exceeding the sum of the amounts, in tons, of the unit's NO<sub>x</sub> emission reductions in 2007 and 2008 that are not necessary to comply with any state or federal emissions limitation applicable during such years, determined in accordance with 40 CFR Part 96, Subpart HH.
- (c) For any CAIR NO<sub>x</sub> unit whose compliance with the CAIR NO<sub>x</sub> emissions limitation for the control period in 2009 would create an undue risk to the reliability of electricity supply during such

control period, the CAIR designated representative of the unit may request the allocation of CAIR NO. allowances from the compliance supplement pool under subsection (a) of this section, in accordance with the following. (1) The CAIR designated representative of such CAIR NO, unit shall submit to the executive director by July 1, 2009, a written request for allocation of an amount of CAIR NO. allowances from the compliance supplement pool not exceeding the minimum amount of CAIR NO. allowances necessary to remove such undue risk to the reliability of electricity supply. (2) In the request under subsection (c)(1) of this section, the CAIR designated representative of such CAIR NO, unit shall demonstrate that, in the absence of allocation to the unit of the amount of CAIR NO, allowances requested, the unit's compliance with CAIR NO, emissions limitation for the control period in 2009 would create an undue risk to the reliability of electricity supply during such control period. This demonstration must include a showing that it would not be feasible for the owners and operators of the unit to: (A) obtain a sufficient amount of electricity from other electricity generation facilities, during the installation of control technology at the unit for compliance with the CAIR NO emissions limitation, to prevent such undue risk; or (B) obtain under subsections (b) and (d) of this section, or otherwise obtain, a

sufficient amount of CAIR NO<sub>x</sub> allowances to prevent such undue risk.

(d) The executive director shall review each request under subsections (b) or (c) of this section

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submitted by July 1, 2009, and shall allocate CAIR NO, allowances for the control period in 2009 to

CAIR NO, units covered by such request as follows.

(1) The executive director shall make any necessary adjustments to the request to

ensure that the amount of the CAIR NO, allowances requested meets the requirements of subsections

(b) or (c) of this section.

(2) If the total amount of CAIR NO<sub>x</sub> allowances in all requests, as adjusted under

paragraph (1) of this subsection, is less than the amount of allowances in the compliance supplement

pool under subsection (a) of this section, the executive director shall allocate to each CAIR NO<sub>x</sub> unit

covered by a request the amount of CAIR NO, allowances requested, as adjusted under paragraph (1)

of this subsection.

(3) If the total amount of CAIR NO<sub>x</sub> allowances in all requests, as adjusted under

paragraph (1) of this subsection, is more than the amount of allowances in the compliance supplement

pool under subsection (a) of this section, the executive director shall allocate CAIR NO<sub>x</sub> allowances to

each CAIR NO, unit covered by a request according to the equation in the following figure.

Figure: 30 TAC §101.508(d)(3)

$$A = \frac{RQ}{\sum_{i=1}^{n} RQi} \times SP$$

Where:

A = the number of Clean Air Interstate Rule (CAIR) oxides of nitrogen  $(NO_x)$  allowances, rounded to the nearest whole allowance, allocated from the compliance supplement pool to a unit covered under a compliance supplement pool allocation request accepted by the executive director.

*i* = each compliance supplement pool allocation request accepted by the executive director.

n = the total number of compliance supplement pool allocation requests accepted by the executive director.

RQ = the amount of CAIR  $NO_x$  allowances requested for the unit under subsection (b) or (c) of this section, as adjusted under subsection (d)(1) of this section.

SP = the amount of CAIR  $NO_x$  allowances in the compliance supplement pool.

(4) By November 30, 2009, the executive director shall determine, and submit to

EPA, the allocations under paragraph (2) or (3) of this subsection.